

CLAIMS

What is claimed is:

1. A D-DAFO (DeRoss- Dynamic Ankle Foot Orthosis) comprising a posterior base shell, ⁷ (an anterior (pre-tibial) shell) ⁸ a tongue, attachment means for securing said posterior base shell, ⁹ (said outer anterior shell) ⁸ and said tongue ⁹ about said D-DAFO ankle foot orthosis, and wherein said D-DAFO ankle foot orthosis further includes (an upper tibia portion) ^{spec?} with a front and back portion ^{spec?} disposed about a vertical axis, and (a lower ankle forefoot portion) ^{spec?} with a top and bottom portion ^{spec?} disposed about a horizontal axis of a subject patient's foot.
2. A D-DAFO according to claim 1, wherein said posterior base shell ⁷ further includes a pair of (upper) flanges ^{spec. 15} for securing the posterior base shell ⁷ with the tongue ⁹ and (outer anterior shell) ⁸ with said attachment means provided about (the upper tibia portion) ^{spec.} of the D-DAFO ankle foot orthosis and about the vertical axis.
3. A D-DAFO according to claim 1, wherein said posterior base shell ⁷ further includes a pair of (lower) flanges ^{spec. 16} for securing the posterior base shell ⁷ with the tongue ⁹ and said attachment means provided about the lower ankle forefoot portion of the D-DAFO ankle foot orthosis and about the horizontal axis.
4. A D-DAFO according to claim 1, wherein said attachment means ¹² for securing said posterior base shell ⁷ and said pair of upper flanges ¹⁵ with the tongue ⁹ and said (outer) anterior shell ⁸ about the upper tibia portion of the D-DAFO ankle foot orthosis and said vertical axis is an elastic strap. ¹²

CLAIMS (Cont'd)

5. A D-DAFO according to claim 1, wherein said attachment means for

securing said posterior base shell with said pair of lower flanges with the tongue
about the lower ankle foot portion of the D-DAFO ankle foot orthosis and said
horizontal axis is a Velcro strap.

6. A D-DAFO according to claim 1, wherein said attachment means for

securing said upper pair of flanges of said posterior base shell with said elastic
strap, said tongue, and said outer anterior shell and said attachment means for securing
said lower pair of flanges of said posterior base shell with said Velcro strap, said
tongue, and said outer anterior shell includes rivet fasteners.

7. A D-DAFO according to claim 1, wherein said posterior base shell further
includes forefoot posting and hind foot posting disposed about said bottom portion
of said lower ankle forefoot portion.)

8. A D-DAFO (DeRoos-Dynamic Ankle Foot Orthosis) comprising:

(a) a posterior base shell with an upper portion further including a front portion and a
back portion disposed about a generally vertical axis, and a lower portion having a top
portion and a bottom portion disposed about a generally horizontal axis;

(b) said posterior base shell further includes a forefoot posting and a hindfoot posting
at the bottom portion of said D-DAFO ankle foot orthosis;

(c) an outer anterior pre-tibial shell for engaging said posterior base shell

about both the vertical axis so as to maintain the D-DAFO ankle orthosis in proper
attitude while ensuring dynamic flexibility;

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CLAIMS (Cont'd)

8. (Cont'd)

→ (d) a ⁹tongue disposed between the posterior base shell ⁷ and ⁸outer anterior (pre-tibial) shell having an ^{spec?}upper half portion and ^{spec?}lower half portion to engage the D-DAFO orthosis;

(e) said front portion of said upper portion of said posterior base shell further includes ¹⁵a pair of external flanges, and said top portion of said lower portion of said posterior base shell ⁷further includes a pair of ¹⁶external flanges providing attachment means for the posterior base shell, and the tongue;

(f) an elastic upper strap ¹²for retaining the the pair of ^{spec? 15}external flanges on the upper portion of said posterior base shell and the upper half portion of the tongue;

(g) a ¹¹Velcro strap for retaining and securing said pre-tibial shell ⁸with the external flanges ¹⁶of the lower portion of said posterior base shell and the lower half portion of the tongue;

(h) ¹⁰a liner disposed to engage the top portion of said lower portion of said posterior base shell and the outer anterior pre-tibial shell and the ¹²D-DAFO orthosis posterior; and

(i) ¹³rivet fastener means for attaching and securing the elastic upper strap and ¹¹Velcro strap with the pairs of external flanges disposed upon the upper portion and lower portion of the said posterior base shell for engaging the tongue and posterior base shell with the D-DAFO ankle orthosis about the patient's foot.